

1. A method of processing scanner density values of a digitized image of an original film such that a projection of the digitized image closely matches that image which a film projector would produce when projecting the original film; said method comprising the steps of:

digital color balancing by writing the printing density values and a LAD

printing the film according to LAD procedure;

carrying out a relationship between the device independent color space and a display device output to obtain RGB code values;

scaling the adjusted RGB code values to an appropriate bit depth.

3. A method as set forth in Claim 1, wherein the device independent color space values are CIE XYZ color space values.

5. A method as set forth in Claim 1, wherein the transformation into a device independent color space values is implemented by a series of one-dimensional LUTs (Look-Up Tables) and matrices.

6. A method as set forth in Claim 1, wherein the transformation into a device independent color space ^{value} is implemented by a three-dimensional LUT.

7. A method as set forth in Claim 1, wherein the transformation into a device independent color space values describes a linear relationship between the device dependent color space values and the device independent color space. *values*

8. A method as set forth in Claim 1, wherein the transformation into a device independent color space values describes a non-linear relationship between the device dependent color space values and the device independent color space. *values*

9. A method as set forth in Claim 1, further comprising the step of applying a chromatic adaptation function to the device independent color space values.

10. A method as set forth in Claim 9, wherein the chromatic adaptation function applied to the device independent color space values is a VonKries chromatic adaptation.

11. A method as set forth in Claim 1, wherein the step of carrying out a relationship between the device independent color space values and a display device output is effected by a matrix transformation between the device independent color values and ^{the} RGB code values for the display device.

12. A method as set forth in Claim 1, further comprising the step of applying dark surround adaptation to the RGB code values to accommodate illumination levels and dark surroundings that do not match those conditions where traditional motion picture print film is viewed.

13. A method as set forth in Claim 1, further comprising the step of applying flare corrections to the RGB code values to accommodate illumination levels and dark surroundings that do not match those conditions where traditional motion picture print film is viewed.

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